WHAT IS CLAIMED IS:

1.   A method for providing boot information to a client on a computer network, comprising:

5   selecting a multicast address at which the boot information will be multicast;

determining whether the selected multicast address is being used to multicast information different from the boot information; and

transmitting the selected multicast address to the client if the selected

10   multicast address is not being used.

2.   The method as set forth in claim 1, wherein determining whether the selected multicast address is being used to multicast information different from the boot information includes transmitting a conflict query.

15

3.   The method as set forth in claim 1, wherein a plurality of boot server processes are present on the computer network.

4.   The method as set forth in claim 3, further comprising using a file server

20   process to multicast the boot information to the client at the selected multicast address, wherein the file server process and at least one of the plurality of boot server processes are located on different machines.

25   5.   The method as set forth in claim 4, further comprising:

using one of the plurality of boot server processes to notify the file server process that the client will be making a request to the file server process; and

using the file server process to transmit an acknowledgement that the file server process is ready for the client to make the request.

30

6.   The method as set forth in claim 5, further comprising configuring the file server process for the request from the client system after receiving notification from the one of the plurality of boot server processes and before sending the acknowledgement.

16

7.   The method as set forth in claim 3, wherein determining whether the selected multicast address is being used to multicast information different from the boot information includes transmitting a conflict query from a querying boot server process to a remainder of the plurality of boot server processes.

5

8.   The method as set forth in claim 7, further comprising selecting a different multicast address if the selected multicast address is being used to multicast information different from the boot information.

10   9.   The method as set forth in claim 7, wherein an address conflict is found if one of the remainder of the plurality of boot server processes sends an acknowledgement to the conflict query.

10.   The method as set forth in claim 8, further comprising marking the
15   selected multicast address as being used and storing the marked selected multicast address in a database.

11.   The method as set forth in claim 1, further comprising using the client to listen at the selected multicast address for the boot information to be multicast.

20

12.   The method as set forth in claim 11, wherein the client listens at the selected multicast address for a period of time.

13.   The method as set forth in claim 12, further comprising:
25   receiving no response during the period of time; and
                using the client to send a request to a file server process to transmit the boot information at the selected multicast address.

14.   The method as set forth in claim 11, further comprising using the client to
30   receive the boot information from a file server process that is multicasting the boot information at the selected multicast address.

15.   A method for resolving address conflicts on a computer network prior to booting a client, comprising:

17

using a first boot server process on the network to determine whether other boot negotiation server processes on the network are using a first multicast address; and

sending the first multicast address to the client if the first multicast

5   address is not being used by the other boot negotiation server processes;

selecting a second multicast address if the first multicast address is being used by the other boot negotiation server processes.

16.   The method as set forth in claim 15, further comprising using the client to

10   listen at the first multicast address to receive boot information.

17.   The method as set forth in claim 15, wherein using a first boot server process on the network to determine whether other boot negotiation server processes on the network are using a first multicast address further comprises causing the first boot

15   server process to transmit a conflict query to the other boot negotiation server processes over the computer network.

18.   A pre-boot address management method for configuring a file server process on a computer network to send boot information to a client, comprising:

20   causing a first boot server process on the computer network to select a first multicast address;

using the first boot server process to send a query packet to other boot negotiation server processes on the computer network to determine whether the first multicast address is being used to provide information different from the boot

25   information; and

using the first boot server process to notify the file server process that the client will be requesting boot information at the first multicast address if the first multicast address is not being used to provide information different from the boot information;

wherein the first boot server negotiation process and the file server

30   process are located on separate machines.

19.   The pre-boot address management method as set forth in claim 18, wherein a response to the query packet is received by the first boot server process if the

18

first multicast address is being used to provide information different from the boot information.

       20.   The pre-boot address management method as set forth in claim 18,

5   wherein the first server process selects a different multicast address if the first multicast address is being used to provide information different from the boot information.

19